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September 3, 2009

Robert L. Pettit
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Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Ex Parte Presentation (IB Docket No. 95-91; WT Docket No. 07-293)

Dear Ms. Dortch:

On September 2, 2009, representatives of Sirius XM Radio, Inc. ("Sirius XM") discussed issues associated with the above-captioned proceedings with Erin McGrath, Acting Legal Advisor to Commissioner Baker.

Attending the meeting from Sirius XM was James Blitz, Vice President – Regulatory Counsel. Mr. Blitz was accompanied by Michael Lewis (Engineering Consultant) and the undersigned from Wiley Rein, LLP on behalf of the company.

Sirius XM summarized the results of two days of demonstrations and tests with WCS licensees and FCC staff that were the subject of a recent filing by the company.[1] Sirius emphasized that if the Commission were to amend its rules to allow mobile WiMAX operations in the WCS band, those rules should identify and detail mobile WCS operating parameters and usage restrictions that would protect Sirius XM's subscribers. Sirius XM also distributed the attached presentation, which has previously been inserted into the record.

Sincerely,

/*S*/ *Robert L. Pettit*
Robert L. Pettit
Counsel to Sirius XM Radio, Inc.

cc: Erin McGrath

[1] *See*, Letter from Terrence R. Smith, Corporate Vice President and Chief Engineering Officer, and James S. Blitz, Vice President, Regulatory Counsel, Sirius XM Radio, Inc. to Marlene H. Dortch, Secretary, Federal Communications Commission, WT Docket No. 07-293, submitted August 3, 2009.

Satellite Radio/WCS Interference Issues

Executive Summary

- Sirius XM needs a formalized licensing process for its terrestrial repeaters. The process should provide blanket authorization for new transmitters while grandfathering existing repeaters.
- The FCC must protect the ability of 19 million subscribers to receive high quality service from Sirius XM without interruption from WCS mobile devices. This requires limiting the power of mobile WCS devices to 125 milliwatts and WCS out-of-band emissions to 90+10logP.

Satellite Radio And WCS
There Are Two Separate Proceedings

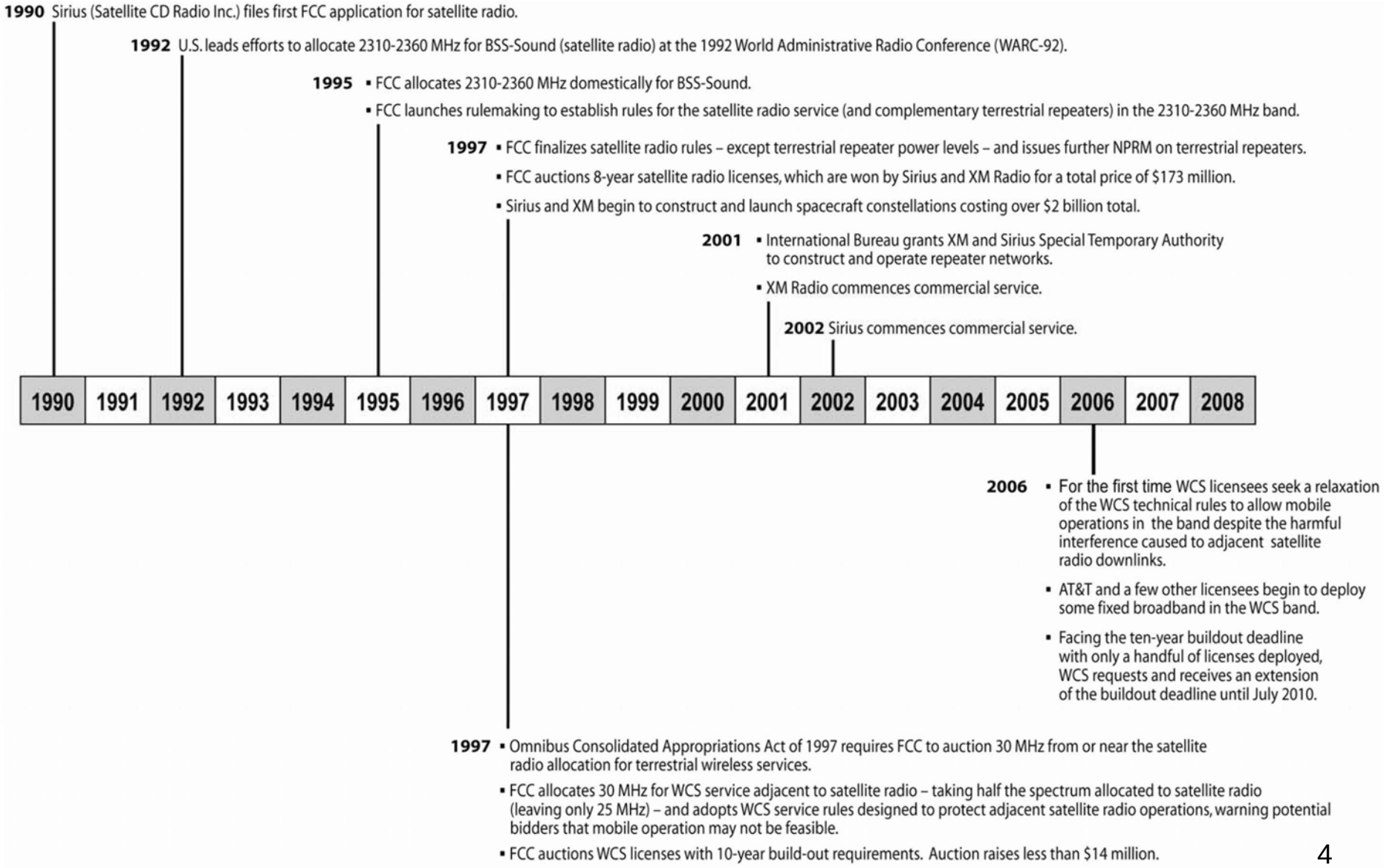
Satellite Radio Repeater Rules (IB Dkt. No. 95-91) – Part 25

- Initiated in 1997, the current focus is the establishment of permanent licensing rules for satellite radio terrestrial repeaters.
- Currently, terrestrial repeaters are authorized through a cumbersome STA process.
- There are few points of controversy in this proceeding and issues are sufficiently narrow to adopt rules now.

Amendment of WCS Rules (WC Dkt. No. 07-293) – Part 27

- Initiated in December 2007, this proceeding proposes to significantly expand opportunities for mobile WCS uses.
- WCS licensees seek technical rule changes to allow incompatible mobile use on frequencies immediately adjacent to satellite radio spectrum now used to serve 19 million consumers as well as critical flight testing operations for both military and civilian aircraft.

Timeline of Satellite Radio and WCS Proceedings



The Fundamental Issue

WCS licensees are seeking to undo FCC decisions made in 1997 to protect satellite radio and aircraft testing operations from mobile WCS transmitters. Placing unaffiliated mobile services immediately adjacent to satellite receive bands would be unprecedented.

The Rules Must Reflect the Environment in Which Satellite Radio Operates

The Rules Must Reflect the Environment in Which Satellite Radio Operates

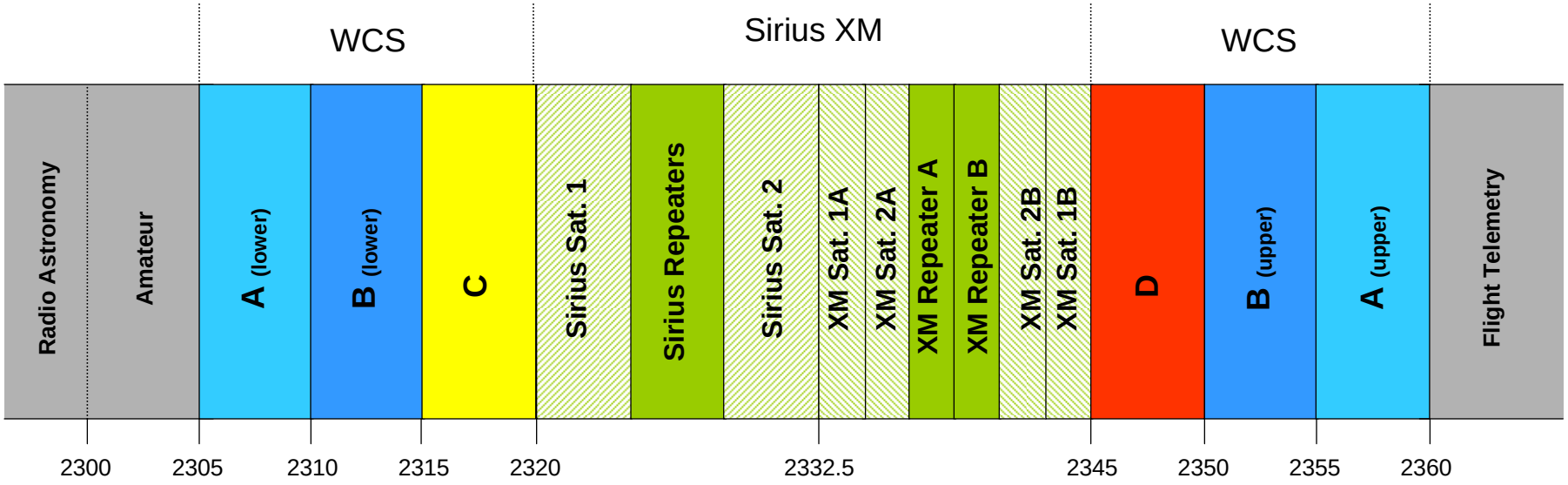
In developing technical rules for WCS, the FCC must consider:

1) the proximity of the WCS service to satellite radio,

2) the challenging service conditions for satellite radio, and

3) the risk that millions of existing satellite radio subscribers will receive harmful interference that will mute their reception.

Point 1: WCS and Satellite Radio Operate on Adjacent Frequencies



- The satellite radio allocation falls between two WCS spectrum blocks.
- WCS C & D Blocks are immediately adjacent to satellite downlink spectrum.
- WCS spectrum is also immediately adjacent to flight telemetry and nearby to radio astronomy allocations.

Point 2: Satellite Radio Faces Challenging Service Conditions

- To remain competitive, satellite radio must deliver a reliable and high-quality product.
- Providing high-quality audio from a satellite to a mobile receiver requires signal diversity from two satellites and, in dense urban areas, additional diversity from terrestrial repeaters.
- Located tens of thousands of miles away, satellites provide a relatively weak signal on the ground that is subjected to further attenuation from typical operating conditions *(*buildings, overpasses, foliage).
- The satellite radio "link margin" (the amount of additional power available to overcome shadowing or blockage) is minimal, especially in comparison to the level of potential WCS interference.
- In large part, satellite radio infrastructure was designed and constructed in reliance of FCC rules that protect satellite receivers from mobile WCS devices. Changing the rules now threatens the continued delivery of high quality audio to more than 19 million subscribers.

Point 2: Satellite Radio Faces Challenging Service Conditions (cont.)

- Because of the difficult service conditions, the FCC in 1997 protected satellite radio listeners from excessive interference by adopting rules that restrict widespread and incompatible mobile services in the WCS bands.
- The Commission noted that if satellite radio "*in this spectrum is subject to excessive interference, the service will not be successful and the American public will not benefit*."[1]
- The FCC understood that the restrictions on WCS emissions likely made "*mobile operations in the WCS spectrum technologically infeasible*" and later noted that "*wide area, full mobility systems and services*" were "*likely to be of questionable feasibility*."[2]
- Before it auctioned the WCS spectrum, the FCC went out of its way to "*caution prospective WCS licensees…to carefully consider whether their anticipated uses and business plans can be successfully implemented under the additional technical and operational restrictions necessary to qualify for the lesser out-of-band emission limit*."[3]
- The Commission also noted that because it was "*unable to determine the specific operating parameters of a WCS service until the service is actually implemented*" it was "*appropriate to adopt limits that take into account any possible system configuration*."[4]

[1] *Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service*, Memorandum Opinion and Order, 12 FCC Rcd 3977, 3992 (¶ 27) (1997) ("WCS MO&O").

[2] *See Id.,* 12 FCC Rcd at 3979 (¶ 5); *Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service*, Report and Order, 12 FCC Rcd 10785, 10787 (¶ 3) (1997).

[3] WCS MO&O, 12 FCC Rcd at 3979 (¶ 5).

[4] *Id. at 3991* (¶ 25).

Point 2: Satellite Radio Faces Challenging Service Conditions (cont.)

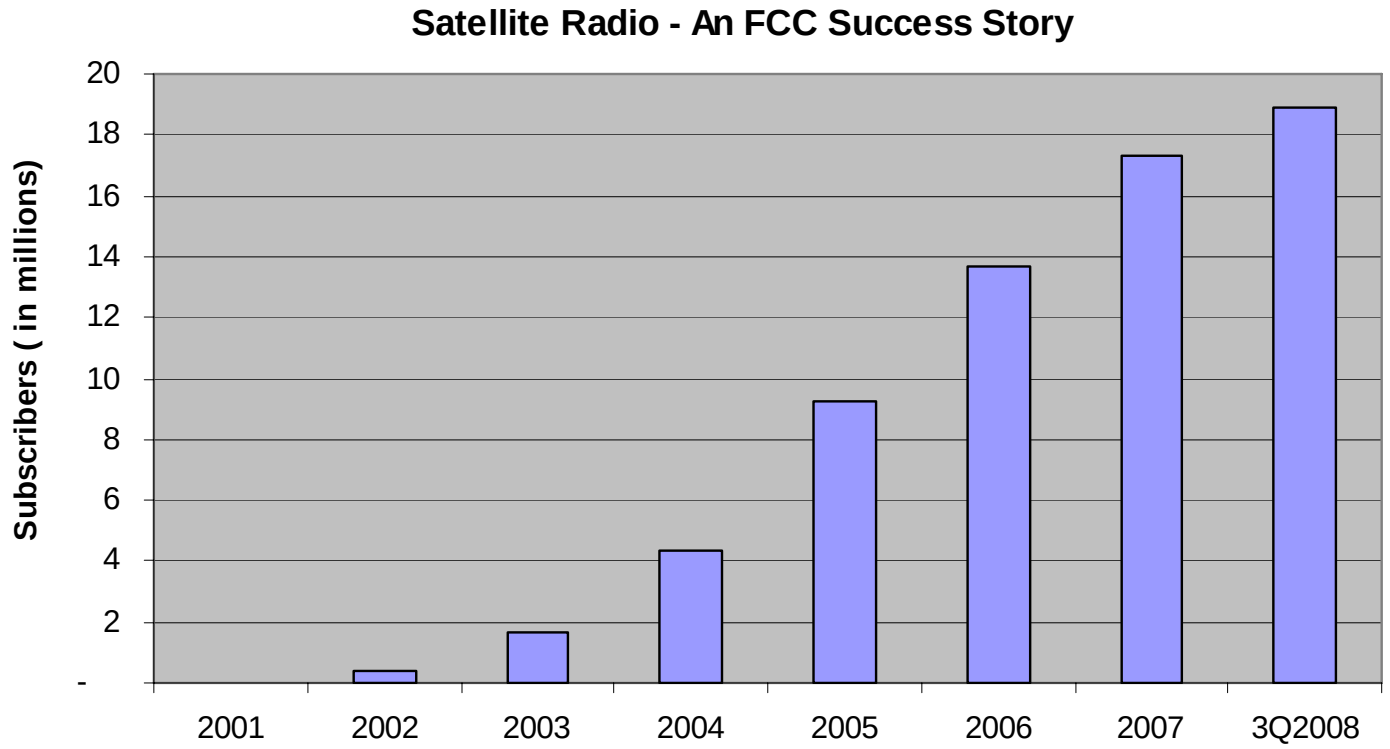
- The FCC's warnings were reflected in the auctions for WCS licenses. WCS licenses were sold at bargain basement prices due to the impracticality of deploying wide area mobile services in this spectrum. The auctions raised a total $13.6 million for 30 MHz nationwide.

- Any change now would constitute unjust enrichment for current licensees and reward them for warehousing spectrum for more than a decade.

- Should FCC consider reallocating WCS spectrum for use by wide area mobiles different from that envisioned in 1997, the Commission should re-auction the WCS licenses.

Point 3: Satellite Radio Currently Serves Millions of Consumers

Satellite radio is an FCC success story. There are 19 million consumers who use receivers that were designed and manufactured under technical rules that did not envision incompatible, wide-area mobile service in adjacent bands.



The WCS Proposal Will Cause Harmful Interference to Satellite Radio Consumers

The WCS Coalition's proposal would increase interference to satellite radio in two ways.

OOBE Interference

- Excessively high levels of WCS out-of-band emissions (OOBE) will mute satellite radio reception.
- This form of interference must be addressed at the transmitter – receivers cannot filter OOBE without damaging the desired signal as well.

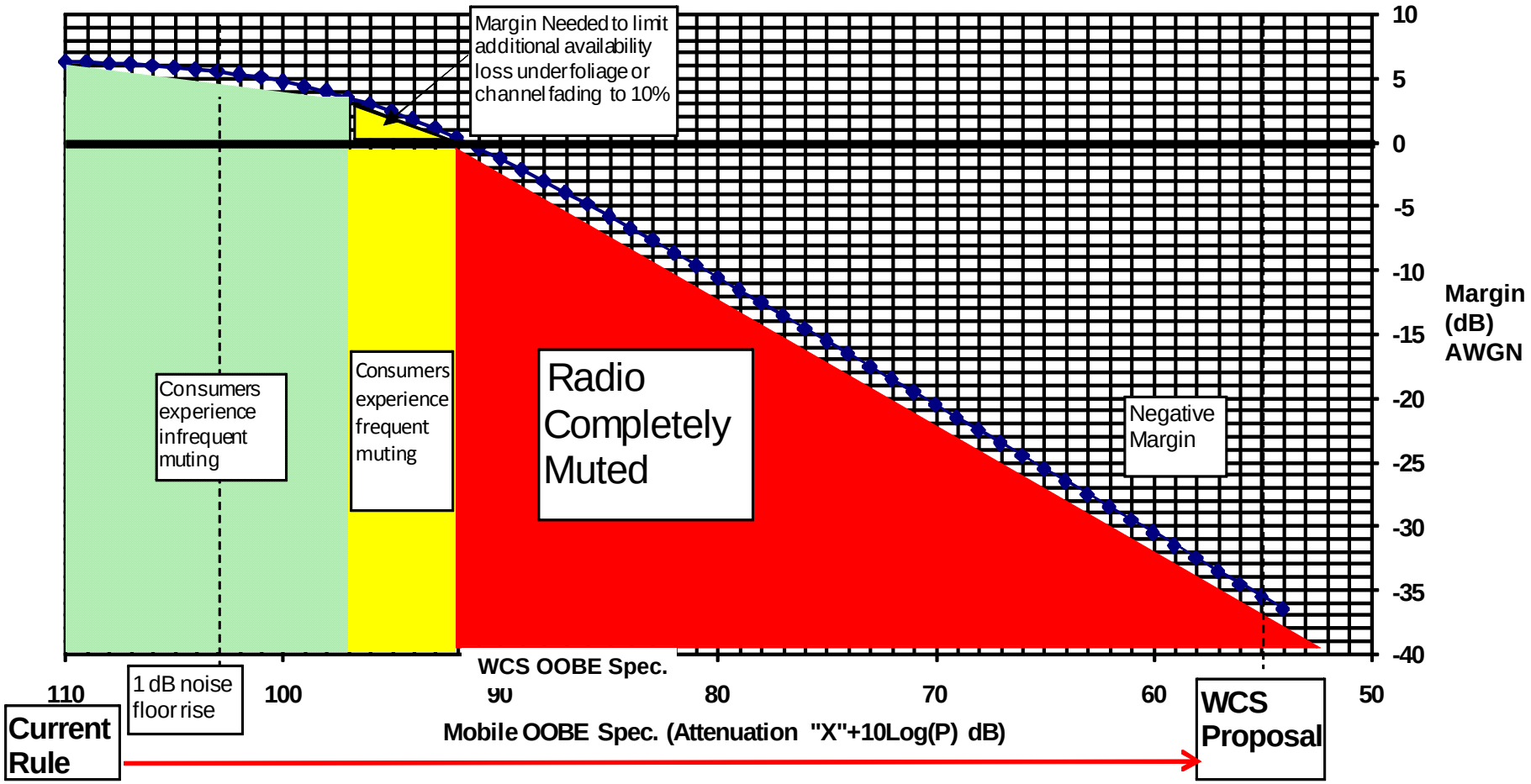
Overload Interference

- Excessive WCS handset power will mute satellite radios when the two devices are in proximity. The ability of Sirius XM receivers to "block" overload interference is on par with comparable terrestrial services, but there is a limit to what filtering can do given the relatively weak satellite signals and the potentially strong WCS interfering signals.00

The WCS Proposal Will Cause Harmful Interference to Satellite Radio Consumers

- In 2007, the WCS Coalition requested an unprecedented relaxation of the out-of-band emission limits for WCS mobile devices.
- The proposal represents an increase in permissible out-of-band emissions by a factor of 316,000 over the 1997 rules established to protect satellite radio consumers.
- The effect would be the establishment of incompatible mobile services in the WCS bands – something the Commission said was not feasible in 1997.
- *Nothing has changed the physics to support such wholesale changes to the rules that would work against adjacent services that were built in compliance and reliance with the existing rules.*

The WCS Proposal Will Mute Satellite Radio Reception



High Probability of Interference

In many driving environments such as congested highways, there is a high probability of consumers listening to satellite radio being muted by multiple WCS mobile units.

High Probability of Interference (cont.)

Congested or nearby traffic is typical.

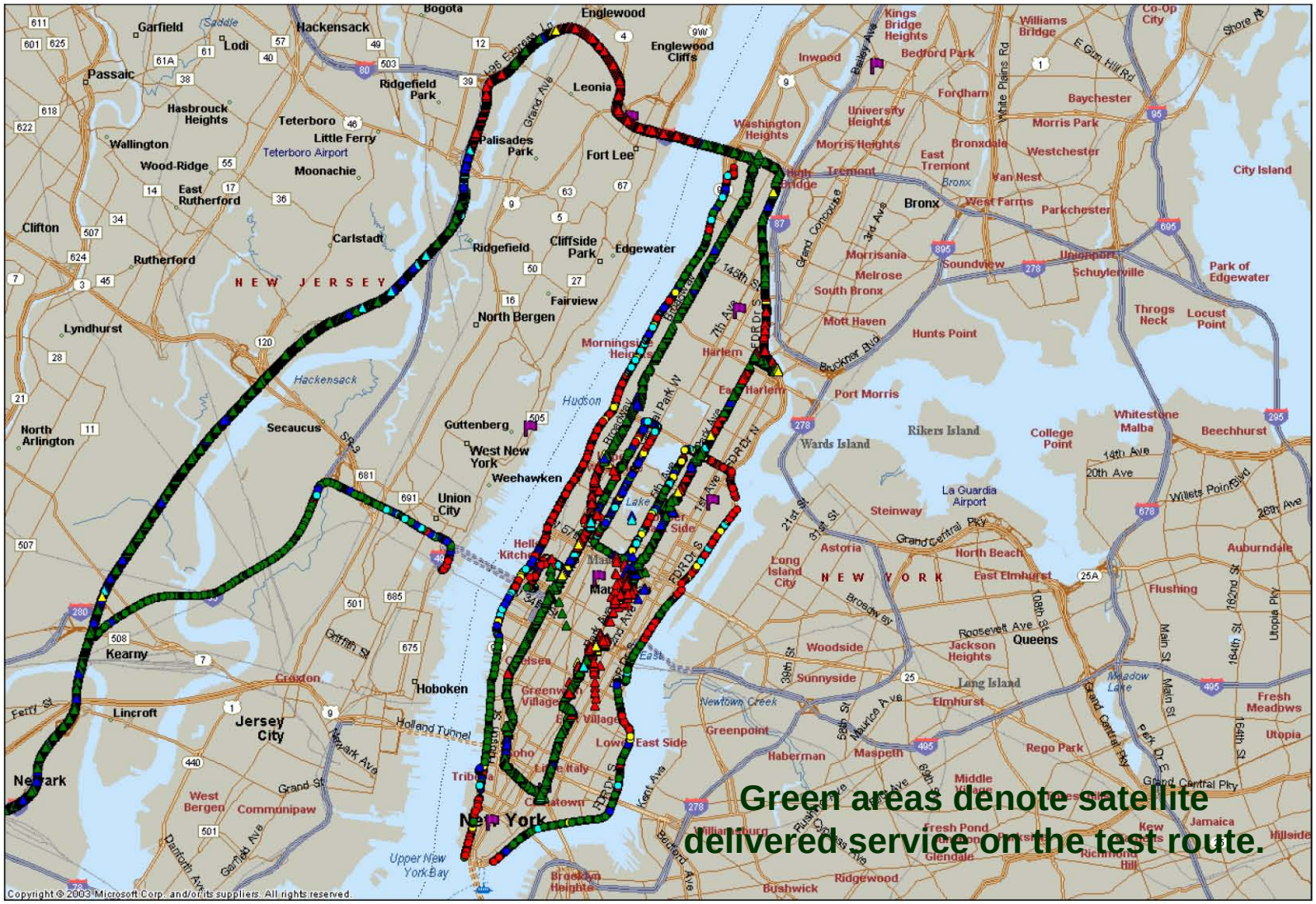
The WCS Proposal Will Cause Harmful Interference to Satellite Radio Consumers

- **Satellite radio and WCS interests have submitted interference field test results:**
  - Unlike the tests submitted by WCS, Sirius XM's tests are detailed, transparent and replicable.
  - Joint testing - paid for by the parties and conducted by an independent lab with FCC oversight – would confirm Sirius XM's results.
  - Since January 2008, Sirius XM has repeatedly sought WCS participation in joint testing, but WCS has refused to participate.
- **Both satellite radio and WCS have submitted analytical interference probability studies:**
  - The WCS study presumes that mobile WCS services will gain little market share and will be mostly used indoors. This may or may not be the case.
  - The FCC has *never* sanctioned harmful adjacent-band interference on grounds of vague and unprovable probability presumptions.
  - Such an approach also would reverse the FCC's determination to protect satellite radio from WCS despite uncertainty as to how the latter would be deployed.

More Satellite Radio Terrestrial Repeaters Is Not the Answer

More Terrestrial Repeaters Is Not the Answer

- Satellite radio is predominantly a satellite service -- terrestrial repeaters cover less than 1% of the U.S.
- An enormous number of repeaters would be needed to overcome increased interference from WCS without any guarantee of success. The costs to Sirius XM would be extreme.
- This approach would turn satellite radio into a terrestrial service, which is inconsistent with the allocation and has been opposed by terrestrial broadcast interests.
- It is remarkable that WCS interests now argue for Sirius XM to install more repeaters to overcome WCS interference. For years, they fought against the deployment of terrestrial repeaters without basis.



Even in Manhattan, consumers rely on satellite signals.

Mobile WCS Operations Will Interfere with Civilian and Military Flight Telemetry

The WCS Proposal Threatens Flight Telemetry Services

- Relaxation of the WCS OOBE limits will subject adjacent band flight telemetry service to interference.
  - Flight telemetry service is a safety service and harmful interference could result in loss of life and property.
  - Flight telemetry service is used to test both military and civilian aviation equipment.

- Relaxation of the WCS OOBE limits into the satellite radio allocation increases the chances that harmful interference to flight telemetry services will occur.
  - Flight telemetry services have benefited from the fact that the FCC has successfully protected satellite radio reception. If that protection is reduced, it is likely that the 2360-2370 MHz flight telemetry band will be subjected to OOBE emissions at high levels.
  - Flight telemetry interests have adequately demonstrated the harmful effects of allowing OOBE at 43+10logP into their bands.

What’s a Reasonable Compromise?

What's a Reasonable Compromise?

- The current rules allow fixed broadband deployment in WCS spectrum and fully protect satellite radio consumers. The 1997 rules appropriately recognized the importance of protecting satellite radio consumers from WCS interference. Nothing has changed since then.
- Nonetheless, Sirius XM has proposed rule changes it considers reasonable in an effort to accommodate WCS operations while protecting satellite radio consumers.
- *But even these changes will result in more interference for satellite radio listeners.*

The Sirius XM Proposal

- Modify the WCS technical standards to allow mobile services in the WCS A and B blocks:
  - Handsets should be limited to a maximum of 125 milliwatts with out-of-band emissions limits set at 90 + 10 log P. These specifications are consistent with FCC proposals for the PCS H-Block.
  - Future consideration of further flexibility if the two services prove to be more compatible.
- Continue to allow fixed broadband services in the C and D blocks as their immediate adjacency to satellite bands necessitates protection of satellite radio at current levels.
- Allow WCS licensees to increase base station power on a coordinated basis in the case of demonstrable interference from grandfathered terrestrial repeaters.

The Sirius XM Proposal

- The FCC should not relegate any portion of Sirius XM's spectrum – for which it paid $173 million and invested billions to deploy – as a functional guard band for mobile WCS operations.
- Such a result:
  - could constitute retroactive rulemaking by rendering useless spectrum previously allocated for satellite radio;
  - would violate the auction rules requiring the Commission to alert potential bidders of the characteristics of licenses prior to auction;
  - would represent a breach of the Commission's contractual obligation of good faith and fair dealing;
  - could undermine future auctions; and
  - [could effectively modify Sirius XM's license to use spectrum allocated for satellite radio.]

The WCS Proposals

- WCS interests' have submitted a "compromise" proposal that would result in massive interference to satellite radio.
  - Sirius XM's tests show that the WCS recommended changes to the existing OOBE and power regulations would not protect satellite radio.
- WCS must continue to protect adjacent radio-astronomy and aeronautical telemetry bands at a levels higher than that proposed for satellite radio. Therefore, it is disingenuous and misleading for WCS licensees to suggest that it is not possible to provide at least that same level of protection to satellite radio.

Sirius XM's Proposals Are Consistent with OET's Approach to AWS-3

Sirius XM's Proposals Are Consistent with OET's Approach to AWS-3

- Applying OET's analysis and taking into account the key difference between the AWS interference environment and the satellite radio/WCS interference environment leads to conclusions consistent with the proposals of Sirius XM.

- Directly inserting parameters and data that are appropriate for WCS/satellite radio into the equations contained in the AWS-3 technical report, the OET analysis would yield technical specifications for WCS mobile devices that are far more stringent than that proposed by the WCS Coalition.

Hundreds of Megahertz of Spectrum Are Available for Fixed and Mobile Broadband Services

Hundreds of Megahertz of Spectrum Are Available for Fixed and Mobile Broadband Services

- Sirius XM understands the importance of broadband services, but:
  - As the FCC stated, the "2320-2345 MHz frequency band is the only spectrum specifically available" for provision of satellite radio in the United States.[1]
  - On the other hand, even the WCS licensees recognize that there are hundreds of MHz of spectrum available for fixed and mobile wireless broadband in other bands.[2]
  - This fact was recognized by the FCC in 1997 when it informed WCS licensees that terrestrial mobile service "can be provided in other spectrum currently available for use by services including cellular and PCS."[3]

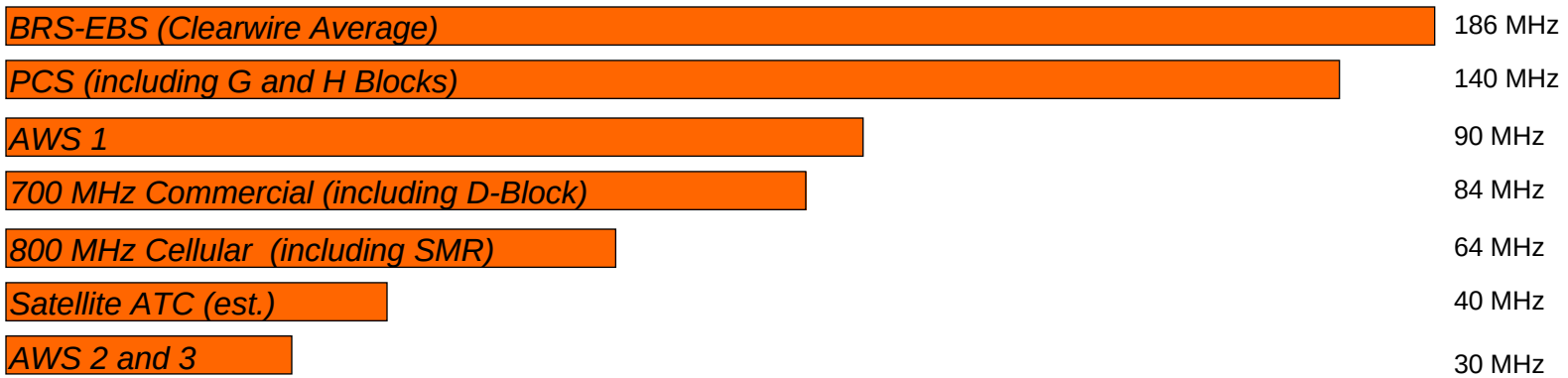
[1] WCS MO&O, 12 FCC Rcd 3992 (¶ 22)

[2] Letter from Jennifer M. McCarthy, Vice President, Regulatory Affairs, NextWave Wireless Inc., to Marlene H. Dortch, Secretary, FCC, IB Docket No. 95-91, at Attachment n. 7 (filed November 19, 2008) (noting that other commercial wireless bands account for more 340 MHz of spectrum, "of which the WCS band represents a mere 30 MHz.")

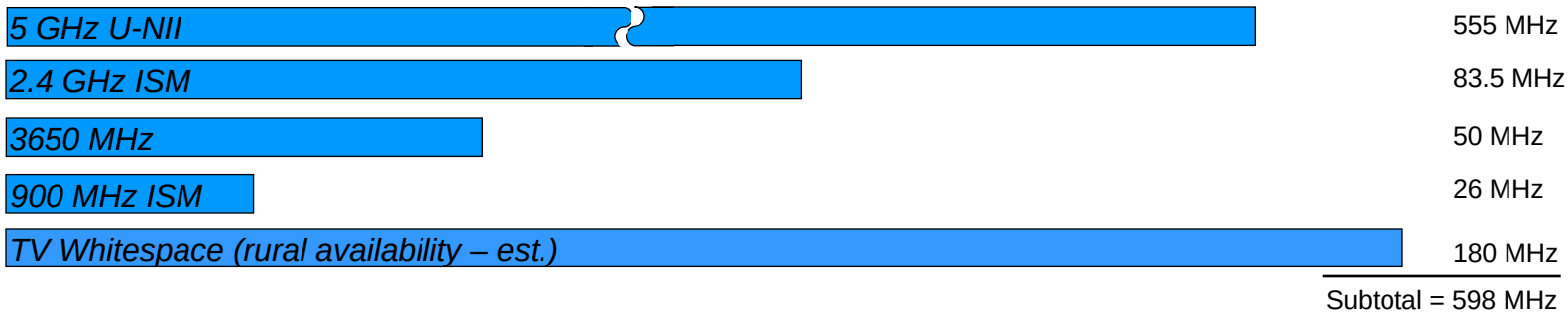
[3] WCS MO&O, 12 FCC Rcd 3992 (¶ 22).

Spectrum Available for Broadband Services

Licensed Services

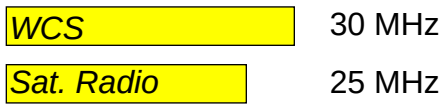


Major unlicensed allocations



Total = 1.50 GHz

In Contrast:



Car Companies Unanimously Oppose the WCS Proposal

November 21, 2008

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

Re: Written Ex Parte Presentation in IB Docket No. 95-91 and WT Docket No. 07-293.

Dear Ms. Dortch:

The FCC's proceeding to modify the technical specifications for the 2.3 GHz Wireless Communications Service ("WCS") is critical to General Motors and the nearly seven million owners of General Motors vehicles equipped with satellite radio. Operating on frequencies immediately adjacent to these vehicles' satellite radio receivers, WCS devices must not be allowed to become a potential source of harmful interference to in-vehicle reception.

Satellite radio programming has proven popular with car buyers; millions of owners having experienced the technology are now subscribers to this important new source of in-vehicle entertainment options.[1] Indeed, automakers have installed and customers have purchased more than twenty million vehicles with satellite radio receivers. Our customers enjoy the variety of programming as well as the high-quality audio that satellite radio offers.

Customers have routinely stated on feedback surveys that their reason for subscribing is the ubiquitous coverage and superior sound quality of satellite radio. Vehicle purchasers have high expectations with satellite radio services in their motor vehicles.

These high expectations will likely be frustrated if the FCC takes an action that would potentially create harmful interference. The proposed rule in the captioned proceedings could significantly impair sound quality by facilitating mobile WCS devices.

[1] It is important to note that Sirius XM also provide potentially life-saving emergency broadcasting information regardless of whether a vehicle is subscribed. With its satellite-based broadcasting capability, vehicle owners have unparalleled access to crisis information when traditional terrestrial based broadcasting may be lost or limited by damage. General Motors believes the Commission should be especially mindful of the impacts of potential harmful interference with this capability.

Notably, this is a use that was specifically discouraged due to interference concerns when WCS licenses were auctioned by the FCC.[2]

General Motors therefore urges the FCC to be extremely cautious and ensure that satellite radio performance is not degraded by inappropriately changing the established rules for WCS operations. Sirius XM Radio has spent billions of dollars developing networks that - to the best of our knowledge- are based on the understanding that mobile WCS devices would not be allowed to interfere.

Satellite radio is unique among FCC-regulated entities and requires a different level of protection from that provided to other wireless devices such as, for example, cell phones. We ask that the Commission keep in mind the following facts:

- Satellite radio represents an extremely dense concentration of customers in a narrow frequency band (more than 18 million subscribers in 25 MHz), thus amplifying the impact of any interference or signal degradation.
- Satellite radio provides high-quality audio and music where drop-outs and interruptions of the duration and frequency that WCS mobile operations may cause are neither expected nor tolerated by subscribers, in large part because competing non-subscription audio services typically provide error-free service.
- Importantly, satellite radio originates from space-based platforms that provide a relatively low-powered signal to receivers tens of thousands of miles away (thus necessitating receivers more susceptible to impairment from out-of- band emissions). Because repeaters are not available in the vast majority of the country, the satellite signal strength is not being augmented or increased by terrestrial means.
- Unlike mobile handheld devices, most satellite radio antennas are located on top of vehicles and are typically unshielded (thus providing less protection from sources of interference).
- Satellite radios do not use spread spectrum technologies which inherently reduce the impact of interference data packets (thus presenting a signal overload threshold lower than, for example, the typical cell phone).

[2] Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service, Report and Order, FCC 97-50, 12 FCC Rcd 10785, ¶¶ 136, 138 (1997)

We appreciate the Commission's consideration of these concerns and urge the Commission to ensure that the actions taken fully protect GM and the millions of consumers who purchase and enjoy satellite radio services.

Respectfully submitted,

Richard M. Lee
Executive Director – Satellite Radio Services
General Motors North American Operations

Joanne M. Finnorn
Attorney
General Motors Legal Staff

Mail Code: 482-D39-B32
400 Renaissance Center
PO Box 400
Detroit, Michigan 48265-4000
313-665-2780

November 18, 2008

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

Re: Written Ex Parte Presentation in IB Docket No. 95-91 and WT Docket No. 07-293.

Dear Ms. Dortch:

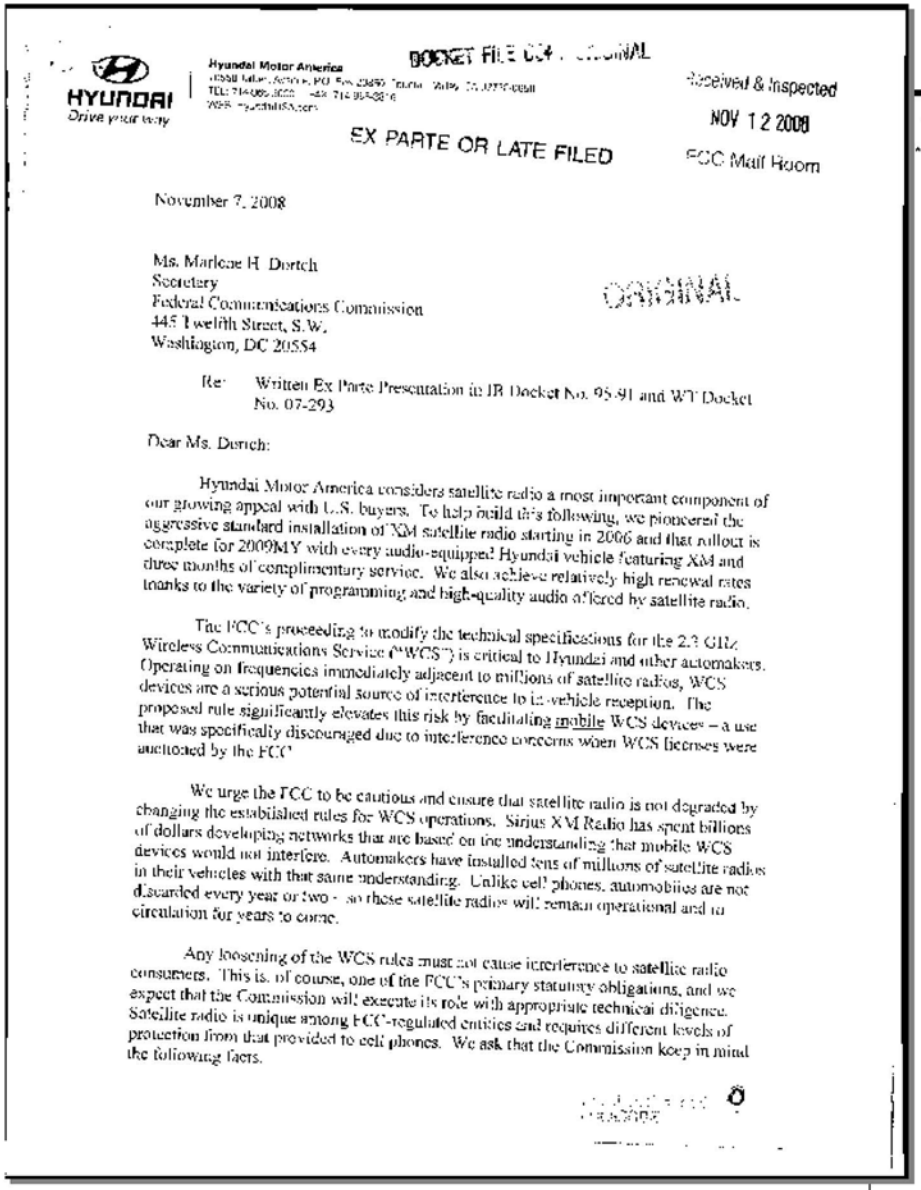
Satellite radio is extremely popular with automobile buyers. Currently, almost 70% of our new vehicles ship with a satellite radio installed, on of Ford's highest option take rates. The number of customers re-subscribing to the service (after the initial 6 month subscription expires) is currently at 46% and steadily increasing. Our customers enjoy the variety of programming as well as the high-quality audio that satellite radio offers.

The FCC's proceeding to modify the technical specifications for the 2.3 GHz Wireless Communications Service ("WCS") is important to us and other automakers. Operating on frequencies immediately adjacent to millions of satellite radios, WCS devices are a potential source of interference to in-vehicle reception. Our consumer research indicates that satellite radio reception quality contributes greatly to the overall SDARS customer satisfaction rating. We would like to ask the commission to please consider these factors as part of your decision making process.

Sincerely,

Douglas R. VanDagens
Director Connected Services
Ford Motor Company

cc: The Honorable Kevin J. Martin
The Honorable Michael J. Copps
The Honorable Jonathan S. Adelstein
The Honorable Deborah Taylor Tate
The Honorable Robert M. McDowell
Mr. Julius Knapp
Mr. Jim Schlichting



HYUNDAI
Drive your way

Hyundai Motor America
[illegible] P.O. Box 20850 [illegible]
TEL: 714-965-3000 FAX: 714-965-3810
WEB: hyundaiusa.com

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FCC Mail Room

EX PARTE OR LATE FILED

November 7, 2008

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

ORIGINAL

Re: Written Ex Parte Presentation in IB Docket No. 95-91 and WT Docket No. 07-293

Dear Ms. Dortch:

Hyundai Motor America considers satellite radio a most important component of our growing appeal with U.S. buyers. To help build this following, we pioneered the aggressive standard installation of XM satellite radio starting in 2006 and that rollout is complete for 2009MY with every audio-equipped Hyundai vehicle featuring XM and three months of complimentary service. We also achieve relatively high renewal rates thanks to the variety of programming and high-quality audio offered by satellite radio.

The FCC's proceeding to modify the technical specifications for the 2.3 GHz Wireless Communications Service ("WCS") is critical to Hyundai and other automakers. Operating on frequencies immediately adjacent to millions of satellite radios, WCS devices are a serious potential source of interference to in-vehicle reception. The proposed rule significantly elevates this risk by facilitating mobile WCS devices – a use that was specifically discouraged due to interference concerns when WCS licenses were auctioned by the FCC.

We urge the FCC to be cautious and ensure that satellite radio is not degraded by changing the established rules for WCS operations. Sirius XM Radio has spent billions of dollars developing networks that are based on the understanding that mobile WCS devices would not interfere. Automakers have installed tens of millions of satellite radios in their vehicles with that same understanding. Unlike cell phones, automobiles are not discarded every year or two – so these satellite radios will remain operational and in circulation for years to come.

Any loosening of the WCS rules must not cause interference to satellite radio consumers. This is, of course, one of the FCC's primary statutory obligations, and we expect that the Commission will execute its role with appropriate technical diligence. Satellite radio is unique among FCC-regulated entities and requires different levels of protection from that provided to cell phones. We ask that the Commission keep in mind the following facts.

HYUNDAI
Drive your way

- Satellite radio represents an extremely dense concentration of customers in a narrow frequency band (over 18 million subscribers in 25 MHz), thus amplifying the impact of any interference or signal degradation.

- Unlike cell phone service – where momentary blips or degradation are easily overcome – satellite radio provides high-quality audio and music where drop-outs and interruptions of the duration and frequency that WCS mobile operations will cause are neither expected nor tolerated by subscribers, in large part because competing audio services typically provide error-free service.

- Satellite radio originates from space-based platforms that provide a relatively low-powered signal to receivers tens of thousands of miles away (thus necessitating receivers more susceptible to impairment from out-of-band emissions). The satellite signal strength can not be augmented or increased by terrestrial means because repeaters are unavailable in most areas of the country.

- Hyundai satellite radio antennas – like those of other automakers – are located on our roof panels and are thus unshielded (hence providing less interference protection compared with mobile handheld devices).

- Unlike cell phones, satellite radios do not use spread spectrum technologies which inherently reduce the impact of interference data packets (thus presenting a signal overload threshold lower than the typical cell phones).

We urge you to consider these facts before you decide these proceedings and ensure that your actions fully protect the 20 million strong satellite radio consumer base.

Sincerely,

Wayne Killen
Director, Infotainment Technology

cc: The Honorable Kevin J. Martin
The Honorable Michael J. Copps
The Honorable Jonathan S. Adelstein
The Honorable Deborah Taylor Tate
The Honorable Robert M. McDowell
Mr. Julius Knapp
Mr. Jim Schlichting

Mazda North American Operations

mazda

November 14, 2008

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

Re: Written Ex Parte Presentation in IB Docket No. 95-91 and WT Docket No. 07-293.

Dear Ms. Dortch:

Mazda North American Operations, headquartered in Irvine, Calif., respectfully submits these comments to express concern over the proposed changes to Wireless Communications Service ("WCS") rules. Specifically, the proposed modification has the potential unintended consequence of causing interference with the satellite radio service currently provided to automobile owners.

Satellite radio is extremely popular with automobile buyers. Currently, a large percentage of new vehicles already ship with a satellite radio installed, and that percentage will significantly increase in the coming years. Just one year ago, the satellite radio installation rate was only about 15 percent. It is projected to hit 30 percent for 2008, rising rapidly to 50 percent in 2009. These numbers confirm that customers do indeed enjoy and value the variety of programming as well as the high-quality audio that satellite radio offers.

We understand that the FCC is considering adopting rules for WCS providers that could result in a significant source of interference to satellite radio reception. Operating on frequencies immediately adjacent to millions of satellite radios, WCS devices are a serious potential source of interference to in-vehicle reception. The proposed rule significantly elevates this risk by facilitating mobile WCS devices – a use that was specifically discouraged due to interference concerns when WCS licenses were auctioned by the FCC.

We urge the FCC to be cautious and ensure that satellite radio is not degraded by changing the established rules for WCS operations. Automakers have installed tens of millions of satellite radios in their vehicles. Unlike cell phones, automobiles are not discarded every year or two – these satellite radios will remain operational and in circulation for years to come.

Sincerely,

Barbara Nocera
Director, Government and Public Affairs

cc: The Honorable Kevin J. Martin
The Honorable Michael J. Copps
The Honorable Jonathan S. Adelstein
The Honorable Deborah Taylor Tate
The Honorable Robert M. McDowell
Mr. Julius Knapp
Mr. Jim Schlichting

1025 Connecticut Ave., NW, Suite 910 Washington, D.C. 20036
Telephone 202.467.5096

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JAGUAR

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www.jaguar.com

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FCC Mail Room

November 10, 2008

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

Subject: Written Ex Parte Presentation in IB Docket No. 95-91 and WT Docket No. 07-293.

Dear Ms. Dortch:

Satellite radio is extremely popular with Jaguar luxury car buyers. At the 2010 model year, 100% of our new vehicles will ship to the United States with a standard satellite radio installed. Our customers enjoy the variety of programming as well as the high-quality audio that satellite radio delivers.

The FCC's proceeding to modify the technical specifications for the 2.3 GHz Wireless Communications Service ("WCS") is critical to us and other automakers. Operating on frequencies immediately adjacent to millions of satellite radios, WCS devices are a serious potential source of interference to in-vehicle reception. The proposed rule significantly elevates this risk by facilitating mobile WCS devices – a use that was specifically discouraged due to interference concerns when WCS licenses were auctioned by the FCC.

We urge the FCC to be cautious and ensure that satellite radio is not degraded by changing the established rules for WCS operations. Sirius XM Radio has spent billions of dollars developing networks that are based on the understanding that mobile WCS devices would not interfere. Automakers have installed tens of millions of satellite radios in their vehicles with that same understanding. Unlike cell phones, automobiles are not discarded every year or two – these satellite radios will remain operational and in circulation for years to come.

Any loosening of the WCS rules must not cause interference to satellite radio consumers. This is, of course, one of the FCC's primary statutory obligations, and we expect that the Commission will execute its role with appropriate technical diligence. Satellite radio is unique among FCC-regulated entities and requires different levels of protection from that provided to cell phones. We ask that the Commission keep in mind the following facts:

- Satellite radio represents an extremely dense concentration of customers in a narrow frequency band (nearly 40 million listeners in 25 MHz, listening over 20 hours per weeks on average), thus amplifying the impact of any interference or signal degradation.
- Unlike cell phone service where momentary blips or degradation are easily overcome, satellite radio provides high-quality audio and music where drop-outs and interruptions are neither expected nor tolerated by subscribers, in large part because competing audio services typically provide error-free service.
- Satellite radio originates from space-based platforms that provide a relatively low-powered signal to receivers tens of thousands of miles away (thus necessitating receivers more susceptible to impairment from out-of- band emissions). The satellite signal strength can not be augmented or increased by terrestrial means in most areas of the country.
- Unlike mobile handheld devices, most satellite radio antennas are located on top of vehicles and are typically unshielded (thus providing less protection from sources of interference).
- Unlike cell phones, satellite radios do not use spread spectrum technologies which inherently reduce the impact of interference data packets (thus presenting a signal overload threshold lower than the typical cell phones).

Taking into account these differences – and others – distinguishing satellite radio from the FCC's recent analysis on the interference potential between Advanced Wireless Service ("AWS") devices, the result in the AWS proceeding does not support the Part 27 rule changes proposed by the WCS Coalition.

Again, we urge you to consider these facts before you decide these proceedings and ensure that the actions you take fully protect the millions of consumers who rely on satellite radio.

Sincerely,

Kent B. Ellis
Product Marketing Manager
Jaguar Cars North America
1 Premier Place
Irvine, CA 92618

cc: The Honorable Kevin J. Martin
The Honorable Michael J. Copps
The Honorable Jonathan S. Adelstein
The Honorable Deborah Taylor Tate
The Honorable Robert M. McDowell
Mr. Julius Knapp
Mr. Jim Schlichting

The FCC Should Resolve the Satellite Radio Repeater Rulemaking Now

The FCC Should Resolve the Satellite Radio Repeater Rulemaking Now

- Sirius XM has been waiting more than 10 years for permanent repeater rules, and there is no technical basis or other reason for further delay.
- Sirius XM has shown that the interference potential from satellite radio repeaters to WCS base stations is minimal and can be largely eliminated with proper WCS site planning and easily implemented interference mitigation techniques.
- WCS base stations enjoy at least a 4 MHz guard band from terrestrial repeater transmissions because terrestrial repeaters operate at least 4 MHz from the WCS C-Block band edge – operations in WCS A and B blocks have between 9 and 14 MHz of guard band.

The Commission Should Adopt Sirius XM's Proposals for Terrestrial Repeaters

- Sirius XM has recommended rules for terrestrial repeaters that would improve certainty and clarity regarding their operation for both satellite radio and WCS licensees.
  - Satellite radio repeaters would be subject to an EIRP cap of 12 kW and would meet a ground based limit of less than 100 dBμV/m in 95% of a given market.
  - Terrestrial repeaters would meet a more restrictive OOBE requirement of 90+10log(P) – 15 dB more restrictive than the current OOBE requirement.
- Sirius XM has proposed the adoption of a formal process to address future interference complaints, including an FCC enforcement backstop.
- These rules would eliminate the need to operate under the unwieldy and inefficient STA process.

The Commission Should Adopt Sirius XM's Proposals for Terrestrial Repeaters

- Grandfather existing terrestrial repeaters.
- Allow Sirius XM to substitute new repeaters for grandfathered repeaters in some cases.
- Adopt a 12 kW cap on new repeater deployments.
- WCS licensees can easily engineer their systems around the existing satellite radio terrestrial network.